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Claims

1. A printing blanket unit for a printing blanket cylinder of a rotary printing press, having a dimensionally stable support plate (02, 18, 42) and a printing blanket (03, 19, 43) fastened on the exterior of the support plate (02, 18, 42), wherein the leading and/or the trailing end of the support plate (02, 18, 42) can be fixed in place on the printing blanket cylinder by means of a folded leg (04, 06, 21, 22, 44, 46), which is not covered by the printing blanket, characterized in that its own filler material (13, 14, 34, 36, 51, 52), which is embodied as a support element (13, 14, 34, 36, 51, 52), is respectively arranged at both ends (11, 12, 31, 32, 61, 62) of the printing blanket (03, 19, 43) between the fold (08, 09, 27, 28, 48, 49) and the inside of the printing blanket (03, 19, 43).

2. The printing blanket unit in accordance with claim 1, characterized in that at least the leading and/or the trailing end (11, 12, 31, 32, 61, 62) of the printing blanket (03, 19, 43) protrudes with its inside some distance past the fold (08, 09, 27, 28, 48, 49) of the associated leg (04, 06, 21, 22, 44, 46) of the support plate (02, 18, 42), and the filler material (13, 14, 34, 36, 51, 52) is arranged for supporting the protruding part.

3. The printing blanket unit in accordance with claim 1, characterized in that in the state where it is applied to the printing blanket cylinder, a radius (R03) of the cylinder relative to the exterior of the printing blanket (03, 19, 43) in the area of the ends (11, 12, 31, 32, 61, 62) of the

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printing blanket is equal to a radius (R03) relative to the exterior of the printing blanket (03, 19, 43) in the area located between the two ends (11, 12, 31, 32, 61, 62)

4. The printing blanket unit in accordance with claim 1, characterized in that, in the state mounted on the printing blanket cylinder, the filler material (13, 14, 34,

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36, 51, 52) arranged at one end (11, 12, 31, 32, 61, 62) of the printing blanket (03, 19, 43) is not connected with the other end of the printing blanket (03, 19, 43), or with the other filler material (13, 14, 34, 36, 51, 52) arranged at the other end (11, 12, 31, 32, 61, 62) of the printing blanket (03, 19, 43).

5. The printing blanket unit in accordance with claim 4, characterized in that, in the state mounted on the printing blanket cylinder, the filler material (13, 14, 34, 36, 51, 52) arranged at one end (11, 12, 31, 32, 61, 62) of the printing blanket (03, 19, 43) does not touch the other end of the printing blanket (03, 19, 43), or the other filler material (13, 14, 34, 36, 51, 52) arranged at the other end (11, 12, 31, 32, 61, 62) of the printing blanket (03, 19, 43).

6. The printing blanket unit in accordance with claim 1, characterized in that, following the mounting of the printing blanket unit on the printing blanket cylinder, the lateral surfaces facing each other of two filler materials (13, 14, 34, 36, 51, 52) of a complementary shape lying opposite each other are located at a short distance opposite each other or come into contact with each other.

7. The method for producing a printing blanket unit in accordance with claim 1 or 6, characterized in that the two filler materials (34, 36) are produced from one workpiece by means of a cutting production method and form the facing lateral surfaces.

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8. The printing blanket unit in accordance with one of claims 1, 6 or 7, characterized in that, following the mounting of the printing blanket unit on the printing blanket cylinder, the lateral surfaces of a complementary shape facing each other at the facing ends (11, 12, 31, 32, 61, 62) of the printing blanket (03, 19, 43) lie opposite each other at a short distance (a02) or come into contact with each other.

9. The printing blanket unit in accordance with claim 8, characterized in that the distance (a02) of the facing

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ends (11, 12, 31, 32, 61, 62) of the printing blanket (03, 19, 43) is 0.2 mm to 0.8 mm.

10. The printing blanket unit in accordance with claim 8, characterized in that the distance (a02) of the facing ends (11, 12, 31, 32, 61, 62) of the printing blanket (03, 19, 43) is 0.3 mm to 0.7 mm.

11. The printing blanket unit in accordance with claim 8, characterized in that the distance (a02) of the facing ends (11, 12, 31, 32, 61, 62) of the printing blanket (03, 19, 43) is 0.4 mm to 0.6 mm.

12. The printing blanket unit in accordance with claim 8, characterized in that the distance (a02) of the facing ends (11, 12, 31, 32, 61, 62) of the printing blanket (03, 19, 43) is 0.5 mm.

13. The method for producing a printing blanket unit in accordance with one of claims 1, 6, 7 or 8, characterized in that the two ends (31, 32) of the printing blanket (09) are produced from one workpiece by means of a cutting production method and form the facing lateral surfaces.

14. The printing blanket unit in accordance with claim 1, characterized in that the fold (09, 27, 49) of the folded leg (06, 21, 46) which is free of the printing blanket has a radius (R) of 0.3 mm to 0.7 mm.

15. The printing blanket unit in accordance with claim

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1, characterized in that the fold (09, 27, 49) of the folded --- --- ---
leg (06, 21, 46) which is free of the printing blanket has a
radius (R) of 0.5 mm.

16. The printing blanket unit in accordance with claim
1, characterized in that the fold (08, 28, 48) of the folded

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leg (04, 22, 44) which is free of the printing blanket has a radius (R) of 0.6 mm to 1.2 mm.

17. The printing blanket unit in accordance with claim 1, characterized in that the fold (08, 28, 48) of the folded leg (04, 22, 44) which is free of the printing blanket has a radius (R) of 0.8.

18. The printing blanket unit in accordance with claim 6, characterized in that the length (L13, L14, L51, L52) of a filler material (13, 14, 51, 52) in the circumferential direction is 0.4 mm to 1 mm.

19. The printing blanket unit in accordance with claim 6, characterized in that the length (L13, L14, L51, L52) of a filler material (13, 14, 51, 52) in the circumferential direction is 0.1 mm to 1.3 mm.

20. The printing blanket unit in accordance with claim 6, characterized in that the length (L13, L14, L51, L52) of a filler material (13, 14, 51, 52) in the circumferential direction is 0.7 mm.

21. The printing blanket unit in accordance with claim 6, characterized in that the length (L13, L14, L51, L52) of a filler material (13, 14, 51, 52) in the circumferential direction is 5 mm.

22. The printing blanket unit in accordance with claim 1, characterized in that the filler material (51, 52)

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protrudes in the radial direction at least partially past the virtual extension (V42) of the exterior of the support plate (42).

23. The printing blanket unit in accordance with claim 1, characterized in that the printing blanket unit has at least one end of a greater thickness than the area located between the two ends, that in the area of this end the

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exterior of the printing blanket unit protrudes in the radial direction at least partially past the virtual extension (V43) of the exterior of the printing blanket (43).

24. A method for producing a printing blanket unit for a printing blanket cylinder of a rotary printing press, having a dimensionally stable support plate (18) and a printing blanket (19) fastened on the exterior of the support plate (18), wherein the leading and/or the trailing end of the support plate (18) can be fixed in place on the printing blanket cylinder by means of a folded leg (21, 22), which is not covered by the printing blanket,

characterized in that

- the support plate (18) is fastened on a processing cylinder, whose shape corresponds to the printing blanket cylinder,

- the gap (26) between the oppositely located folds (27, 28) of the support plate (18) is filled with a support material (24),

- a printing blanket (19) is fastened on the support plate (18) in such a way, that the leading and/or the trailing end (31, 32) of the inside of the printing blanket (19) protrudes some distance past the fold (27, 28) of the associated leg (21, 22),

- prior to or following the fastening of the printing blanket (19) on the support plate (18) the support material (24) is cut through, forming two support elements (34, 36).

25. The method in accordance with claim 24, characterized in that before attaching the printing blanket

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(19) to the support plate (18), the printing blanket (19) has a flat shape, and that after attaching the printing blanket (19) to the support plate (18), the gap (26) between the facing lateral surfaces at the ends (31, 32) of the printing blanket (19) which face each other is filled with sealing material (29), wherein the sealing material (29) is cut through for the removal of the printing blanket unit (17) from the processing cylinder.

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26. The method in accordance with claim 25, characterized in that prior to or following the cutting, the sealing material (29) is processed, in particular ground, and forms a cylindrical circumferential surface.

27. The method in accordance with claim 25 or 26, characterized in that the sealing material (29) is cut through simultaneously with the support material (34).

28. The method in accordance with claim 24, characterized in that before the printing blanket (19) is attached to the carrier plate (18), the printing blanket (19) has a hose-like shape.

29. The method in accordance with one of claims 24 to 28, characterized in that prior to fastening the printing blanket (19) on the support plate (18), at least one sub-structure layer (24) is applied to the support plate (18) while forming the filler material (34, 36).

30. The method in accordance with claim 29, characterized in that the sub-structure layer (24) and the support material are simultaneously applied to the support plate (18), using a uniform material.

31. A method for producing a printing blanket unit for a printing blanket cylinder of a rotary printing press, having a dimensionally stable support plate (18) and a printing blanket (19) fastened on the exterior of the support

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plate (18), wherein a filler material (13, 14, 29, 51, 52) is arranged on at least one end (11, 12, 31, 32, 61, 62) of the printing blanket (03, 19, 43), characterized in that first at least one end of the support plate (42) is folded, that thereafter filler material (51, 52) is applied to the support plate (42) at least at one end of the support plate (42) in the area of the fold (48, 49), and that thereafter a printing

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blanket (43), which covers the filler material (51, 52) at least partially, is applied to the support plate (42).

32. The method in accordance with claim 31, characterized in that its own filler material (51, 52) is respectively arranged at both ends (61, 62) of the printing blanket (43).

33. The method in accordance with claim 31, characterized in that the filler material (51, 52) arranged at one end (61, 62) of the printing blanket (43) is not connected with the other end (61, 62) of the printing blanket (43) or with the other filler material (51, 52) arranged at the other end (61, 62) of the printing blanket (43).

34. The method in accordance with claim 32, characterized in that the filler material (51, 52) arranged at one end (61, 62) of the printing blanket (43) does not touch the other end (61, 62) of the printing blanket (43) or the other filler material (51, 52) arranged at the other end (61, 62) of the printing blanket (43).

35. The printing blanket unit in accordance with claim 1, characterized in that the fold (48, 49) is enclosed by the filler material (51, 52).

36. The method for producing a printing blanket unit in accordance with claim 1, characterized in that the filler material (51, 52) is introduced into a production device (41).

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37. The method for producing a printing blanket unit in accordance with claim 1, characterized in that the filler material (51, 52) is introduced in a flowable state.

38. The method for producing a printing blanket unit in accordance with claim 1, characterized in that the filler material (51, 52) is deformed in the course of being introduced.

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39. The method for producing a printing blanket unit in accordance with claim 1, characterized in that, following the introduction of the filler material (51, 52), the printing blanket unit is vulcanized.

40. The method for producing a printing blanket unit in accordance with claim 1, characterized in that separate filler materials (51, 52) are introduced at both ends of the printing blanket unit.

41. The method for producing a printing blanket unit in accordance with claim 1, characterized in that the outside of the filler material (51, 52) is shaped after the introduction of the filler material (51, 52).

42. A method for a printing blanket unit with a dimensionally stable support plate (02, 42) and a printing blanket (03, 43) fastened thereon, comprising the following steps:

- both legs (04, 06, 44) of the support plate (02, 42) without a printing blanket (03, 43) are folded,
- subsequently filler material (13, 14, 51, 52) is introduced at each one of the two ends between the printing blanket (03, 43) and the support plate (02, 42), which is embodied as a support element (13, 14, 51, 52).

43. The method in accordance with claim 42, characterized in that the printing blanket (02, 42) is released from the support plate (02, 42) before the support plate (02, 42) is folded.

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44. The printing blanket unit in accordance with claim 1, characterized in that the support plate (02, 18, 42) is made of metal.

45. The printing blanket unit in accordance with claim 1, characterized in that the printing blanket (03, 19, 43) is multi-layered.

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46. The printing blanket unit in accordance with claim 1, characterized in that the filler material (13, 14, 34, 36, 51, 52) is of one piece.

47. The printing blanket unit in accordance with claim 1, characterized in that the materials of the filler material (13, 14, 34, 36, 51, 52) and the printing blanket (03, 19, 43) are different.

48. The printing blanket unit in accordance with claim 1, characterized in that the materials of the filler material (13, 14, 34, 36, 51, 52) and the printing blanket (03, 19, 43) are identical.

49. The printing blanket unit in accordance with claim 1, characterized in that the filler material (13, 14, 34, 36, 51, 52) is arranged at the printing blanket unit prior to mounting the printing blanket unit on the printing blanket cylinder.

50. The printing blanket unit in accordance with claim 1, characterized in that the printing blanket cylinder is in contact with a forme cylinder.

51. The printing blanket unit in accordance with claim 50, characterized in that the forme cylinder has at least one printing plate.

52. The printing blanket unit in accordance with claim 51, characterized in that the forme cylinder has at least one

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groove, i.e. an interruption in the circumference.

53. The printing blanket unit in accordance with claim 1, characterized in that the filler material (13, 14, 34, 36, 51, 52) acts together with a printing plate while supporting each other.

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54. The printing blanket unit in accordance with claim 1, characterized in that the printing blanket (03, 43) is arranged on top of the filler material (13, 14, 51, 52).

55. The method in accordance with claim 24, 31 or 42, characterized in that the support plate (02, 18, 42) is made of metal.

56. The method in accordance with claim 24, 31 or 42, characterized in that the printing blanket (03, 19, 43) is multi-layered.

57. The method in accordance with claim 24, 31 or 42, characterized in that the filler material (13, 14, 34, 36, 51, 52) is of one piece.

58. The method in accordance with claim 24, 31 or 42, characterized in that the materials of the filler material (13, 14, 34, 36, 51, 52) and the printing blanket (03, 19, 43) are different.

59. The method in accordance with claim 24, 31 or 42, characterized in that the materials of the filler material (13, 14, 34, 36, 51, 52) and the printing blanket (03, 19, 43) are identical.

60. The method in accordance with claim 24, 31 or 42, characterized in that the filler material (13, 14, 34, 36, 51, 52) is arranged on the printing blanket unit prior to

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mounting the printing blanket unit on the printing blanket cylinder.

61. The method in accordance with claim 24, 31 or 42, characterized in that the printing blanket cylinder is in contact with a forme cylinder.

62. The method in accordance with claim 61, characterized in that the forme cylinder has at least one printing plate.

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63. The printing blanket unit in accordance with claim 62, characterized in that the forme cylinder has at least one groove, i.e. an interruption in the circumference.

64. The printing blanket unit in accordance with claim 24, 31 or 42, characterized in that the filler material (13, 14, 34, 36, 51, 52) acts together with a printing plate while supporting each other.